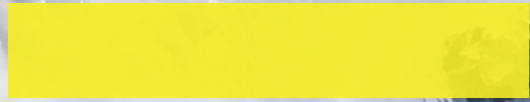




**CAIC**  
www.colorado.gov/avalanche



**17**

**Annual  
Report**

The mission of the **CAIC** is to provide avalanche information, education and promote research for the protection of life, property and the enhancement of the state's economy.

The Colorado Avalanche Information Center (CAIC) is a program of the Colorado Department of Natural Resources (DNR). The program is a partnership between the DNR, Department of Transportation (CDOT), and the Friends of the CAIC (FoCAIC), a 501c3 group. The mission of the CAIC is to provide avalanche information, education, and promote research for the protection of life, property and the enhancement of the state's economy. Colorado's avalanche safety program began as the Colorado Avalanche Warning Center in 1973 with the United States Forecast Service and moved into the State of Colorado in 1983.

The 2016/2017 season was another interesting year in Colorado. It started off slow with a very dry fall. The high country was a mix of bare ground and depth hoar farms into early December. Once it started to snow in earnest it looked like we were headed for a dangerous year of Deep Persistent avalanches. The fire hose turned on just before the New Year, covering up all of our old problems and bringing a few new ones. January was one of the snowiest months since the start of the CAIC in 1973. In parts of the state, over half of the year's snowfall came in the first three weeks of January. The crushing snowfall left as quickly as it arrived. February and March were fairly dry months in all but the Southern Mountains. Snowfall picked up again in the spring with near or above average snowfall in April and May.

The weather and avalanche cycles kept us busy throughout the season, but how people dealt with the unusual year was the most interesting part. We documented 66 avalanches where people were involved including 9 complete burials and 1 fatal accident. The number of people caught in 2016/2017 is close to the 10-year average, but the number of people killed was the lowest since 1997. The one death was a tragic accident where a husband and father lost his life. We hope that our efforts helped everyone that was recreating in the Colorado mountains and contributed to the 8 accidents where people were found alive and could return to their loved ones.

The number of people that travel in the mountains of Colorado during the avalanche season continues to increase. To address their needs and the avalanche threat to public safety, we will continue to build partnerships, improve the quality and accessibility of avalanche forecasts and education programs throughout the great state of Colorado. Thank you for your help and support in the past and we look forward to serving you in the future.

Sincerely,

**Ethan Greene**  
Director  
Colorado Avalanche Information Center



The mission of **the Friends of CAIC** is to support avalanche forecasting and education throughout the State of Colorado.

Dear Friends,

I am honored to write my 10th annual letter on behalf of the Friends of CAIC. I am especially excited to reflect on our 2016/2017 season and our efforts to build the best avalanche center Colorado has ever seen.

We had a number of successes this past season. We hosted the 2016 International Snow Science Workshop (ISSW) in Breckenridge, CO. ISSW brought 1100 snow and avalanche professionals from 21 different countries to Colorado. It was the largest and most successful ISSW ever and we are honored to have played an integral part in its success. Our crowning achievement this past season was our ability to invest over \$330,000 into the CAIC's backcountry avalanche forecasting program and avalanche education. Thank you to all of our partners and donors for helping us achieve a record breaking financial year.

The 2016/2017 season brought an abundance of snowfall. Some places picked up over 15 inches of snow water equivalent, close to 13 feet of snow, during the month of January. We saw avalanches hit highways and close roads. We saw an avalanche destroy a building in Summit County and we saw ski areas close because of too much snow. Unfortunately Colorado had 1 avalanche fatality, 1 fatality too many. That being said, the avalanche fatality trend continues to decrease even as backcountry use skyrockets. Our program and our partnerships are working and saving lives.

Through our continued public and private partnerships we can continue to help grow the backcountry forecasting and education programs of the CAIC. Your help in the past has been fantastic. Thank you! We value you as a partner and with your continued help we can continue to provide the best service to the people that live, work, and play in the Colorado mountains.

Cheers,

**Aaron Carlson**  
Executive Director  
Friends of CAIC



## CAIC Staff

**Ethan Greene**  
Director

**Brian Lazar**  
Deputy Director

**Kevin Ellis**  
CAIC Admin

**Rebecca Hodgetts**  
Lead Avalanche Forecaster

**Mark Mueller**  
Lead Avalanche Forecaster

**John Snook**  
Weather and Avalanche Specialist

**Spencer Logan**  
Weather and Avalanche Forecaster

**Scott Toepfer**  
Weather and Avalanche Forecaster

**Mike Cooperstein**  
Weather and Avalanche Forecaster

**Jason Konigsberg**  
Weather and Avalanche Forecaster

**Nick Barlow**  
Weather and Avalanche Forecaster

**Jeff Davis**  
Avalanche Forecaster

**Mark Gober**  
Avalanche Forecaster

**Susan Hale**  
Avalanche Forecaster

**Ian Hoyer**  
Avalanche Forecaster

**Ann Mellick**  
Avalanche Forecaster

**Ron Simenhois**  
Avalanche Forecaster

**Colin Mitchell**  
Avalanche Forecaster

**Blase Reardon**  
Avalanche Forecaster

**Stu Schaefer**  
Avalanche Forecaster

## Friends of CAIC Staff

**Aaron Carlson**  
Executive Director

**Heather McGonegle**  
Program Coordinator

## Friends of CAIC Board of Directors

**Brent Brown**

**Bruce Edgerly**

**Markian Feduschak**

**Alan Henceroth**

**Knox Williams**

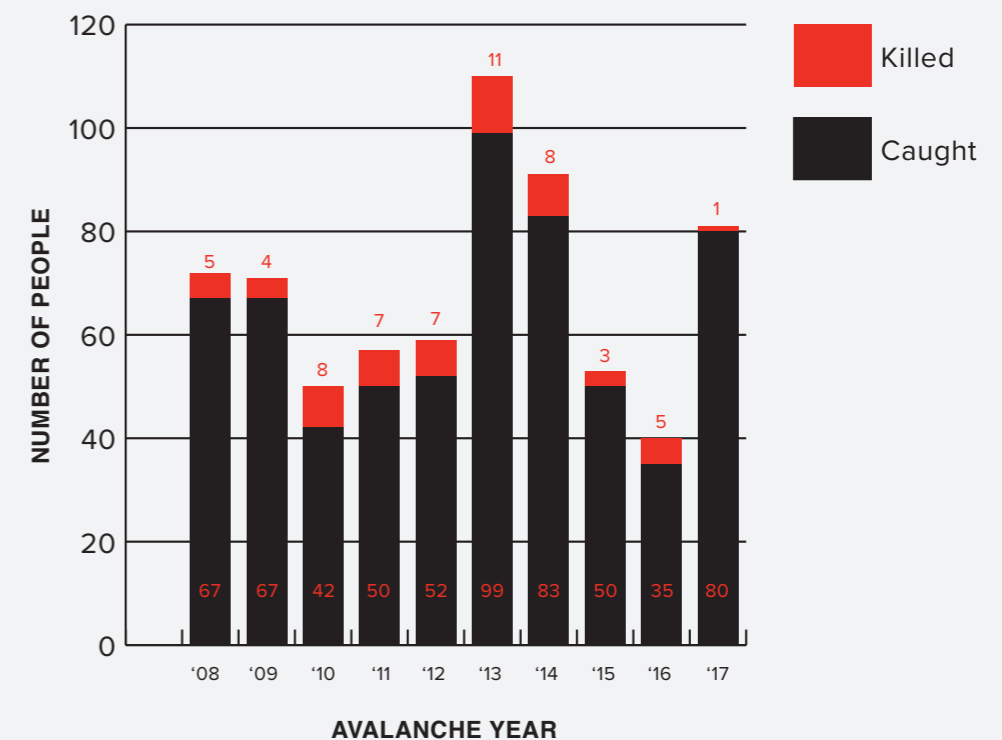
# By the numbers | Avalanches and Accidents

The CAIC recorded data on 2,977 avalanches, including 80 people caught. Of those caught, 1 was killed. The CAIC published 5 detailed accident reports.

AVALANCHES BY FORECAST ZONE

Forecast Zone	Recorded Avalanches
Steamboat & Flat Tops	51
Front Range	377
Vail & Summit County	307
Sawatch Range	215
Aspen	385
Gunnison	376
Grand Mesa	52
Northern San Juan	1,074
Southern San Juan	133
Sangre de Cristo	7
<b>TOTAL</b>	<b>2,977</b>

PEOPLE CAUGHT IN AVALANCHES



## By the numbers | Snowfall Patterns & Education

The 2016-2017 total seasonal snowfall was near or above average for most of the state. An abundance of snowfall in December and January compensated for a very dry fall and spring. Approximately one half to two thirds the season's total snow fell in December and January. January was one of the snowiest months in the last 50 years in Colorado. The snowiest areas of the state picked up over 15 inches of snow water equivalent, close to 13 feet of snow, during the month.

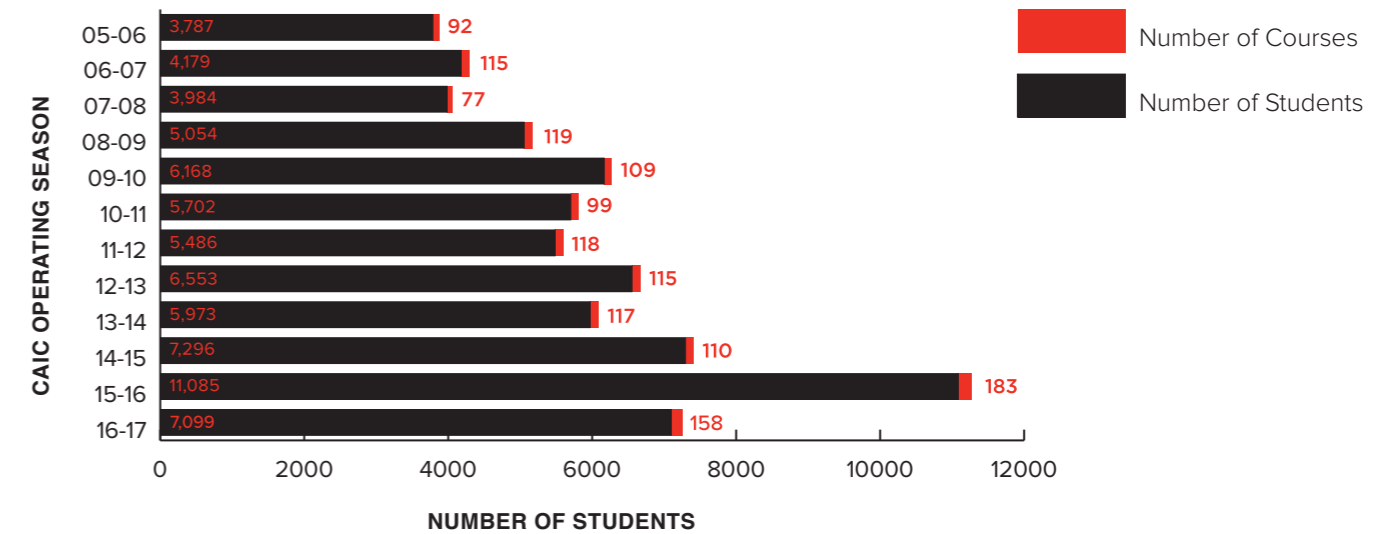
### MONTHLY SNOWFALL FROM NOVEMBER 1, 2016 TO APRIL 30, 2017

	Nov	Dec	Jan	Feb	Mar	Apr	Total	% of Average
Arapahoe Basin	25	86	97	34	20	44	306	110%
Bear Lake (RMNP)	18	60	84	46	20	34	260	111%
Beaver Creek	33	69	90	44	22	46	303	97%
Berthoud Pass	27	88	69	32	23	48	286	94%
Breckenridge	27	84	105	36	30	67	349	115%
Copper Mountain	26	73	82	29	24	16	250	90%
Keystone (North Peak)	23	81	82	28	30	19	263	115%
Loveland Basin	34	74	115	44	28	57	351	101%
Steamboat	37	108	103	48	8	13	317	97%
Vail	37	69	97	34	17	27	279	79%
Winterpark	41	82	79	37	37	31	306	90%
Aspen Highlands	27	52	91	39	24	36	269	108%
Aspen Mountain	24	47	73	35	28	18	224	101%
Gothic	37	67	148	65	15	32	363	107%
McClure Pass	31	58	95	30	22	17	252	102%
Monarch Mountain Ski Area	34	72	130	46	18	25	323	120%
Durango Mtn (Purgatory)	31	52	97	42	32	-	254	117%
Red Mountain Pass	53	57	110	41	55	39	353	119%
Telluride	48	62	96	44	63	5	317	123%
Wolf Creek Ski Area	53	83	152	54	34	7	383	113%
Monument Pass	35	48	74	28	51	36	272	133%
Coal Bank Pass	38	67	153	52	32	21	361	127%
Molas Pass	32	68	146	32	35	24	336	139%

## By the numbers | Education

CAIC staff and trained instructors across the state conducted 160 education events and reached approximately 7600 students. Additionally, the Friends of CAIC and CAIC, in partnership with Breckenridge Ski Patrol hosted the International Snow Science Workshop that was attended by 1100 delegates from 21 different countries.

### Education Initiative



## By the numbers | Contacts



**99**  
Interviews Given



**1,732,675**  
Website Visits



**11,410**  
App Downloads

**Social Followers** f Facebook : 12,672 @ Instagram : 4,480 🐦 Twitter : 8,560

## The Financial Breakdown

### The CAIC and FoCAIC Partnership

The relationship between the CAIC and the Friends of CAIC is an important public-private partnership that provides backcountry avalanche forecasts for everyone in Colorado—as well as; avalanche education for as many people as we can reach. The partnership allows FoCAIC staff to go to events, write grants, and build partnerships on behalf of the mission. And it keeps the CAIC staff in the snow so they can provide the best avalanche forecasts possible for you, the user.

The FoCAIC is a 501(c)3 non-profit organization that was created to financially support avalanche forecasting and education throughout Colorado. We accomplish this through fundraising that includes grant writing, events, individual fundraising, corporate partnerships, and our annual spring fundraising campaign. The FoCAIC has 2 full time staff members that work out of home offices and from road throughout the winter. FoCAIC also has a small Board of Directors that guides the mission of the organization and oversees the ED. The FoCAIC is the private side of the partnership.

The CAIC is a program within the Colorado Department of Natural Resources, a state government agency. They have 20 staff that work out of 10 offices that cover the mountainous areas of Colorado. The CAIC is the public side of the partnership. The mission of the CAIC is to provide avalanche information, education and promote research for the protection of life, property and the enhancement of the state's economy. These are the folks that produce the weather and backcountry avalanche forecasts. They teach avalanche classes to school kids, university students, and avalanche workers. The CAIC also works with CDOT to reduce the threat of avalanches to the State Transportation System.

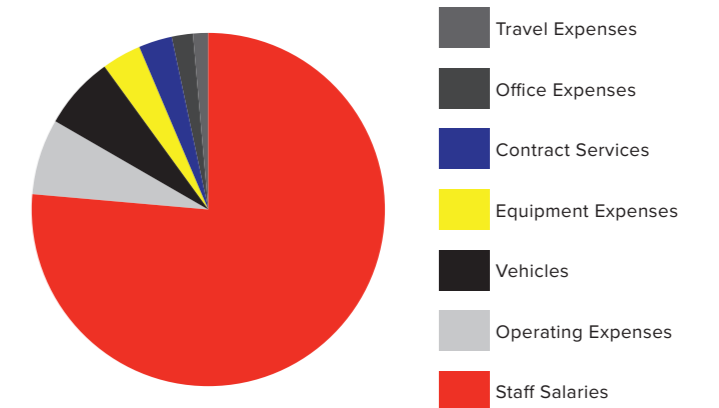
The CAIC's highway operations are funded and conducted through an intergovernmental agreement with the Colorado Department of Transportation (CDOT) to provide training and forecasting for highway maintenance operations. The CAIC's backcountry forecasting operations are funded through several different avenues including; The Severance Tax Fund, fees for providing avalanche training to professional groups, and from the fundraising efforts of the Friends of CAIC. The FoCAIC support allows for a more robust backcountry forecasting and education program here in Colorado. The current program could not have been built with tax dollars alone. We need a strong public-private partnership to sustain it and hopefully improve it in the future.

## CAIC Revenue & Expenditures FY2017

In fiscal year 2017, CAIC had \$1,476,287.25 in expenditures and collected \$1,471,576.17 in revenue. Of the revenue received, \$101,233.72 was received from the ski industry, the Friends of the CAIC, and individual citizens. The remaining revenue (\$1,370,342.45) came from federal, state, and local governments.

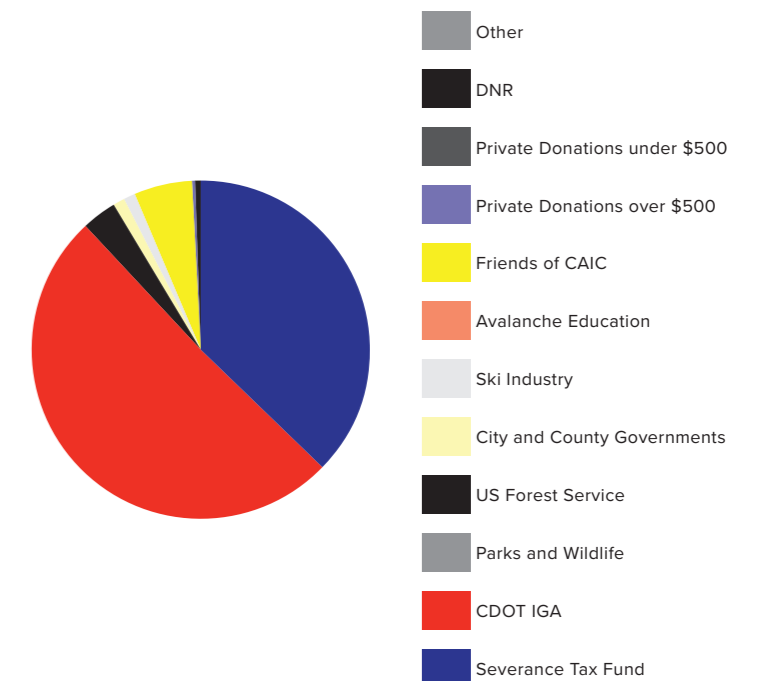
### Expenditures

Vehicles .....	\$99,378.12
Staff Salaries .....	\$1,130,622.34
Contract Services .....	\$44,599.24
Travel Expenses .....	\$18,796.80
Equipment Expenses.....	\$53,267.29
Office Expenses.....	\$29,454.33
Operating Expenses.....	\$100,169.13
<b>TOTAL .....</b>	<b>\$1,476,287.25</b>



### Revenue

Severance Tax Fund .....	\$549,487.08
CDOT IGA .....	\$747,169.62
Parks and Wildlife .....	\$2,000
US Forest Service.....	\$50,000
City and County Governments .....	\$14,949.12
Ski Industry.....	\$15,633.72
Avalanche Education.....	\$1,850
Friends of CAIC.....	\$80,000
Private Donations over \$500.....	\$3,000.00
Private Donations under \$500.....	\$750.00
DNR.....	\$6,682.63
Other .....	\$54.00
<b>TOTAL .....</b>	<b>\$1,471,576.17</b>



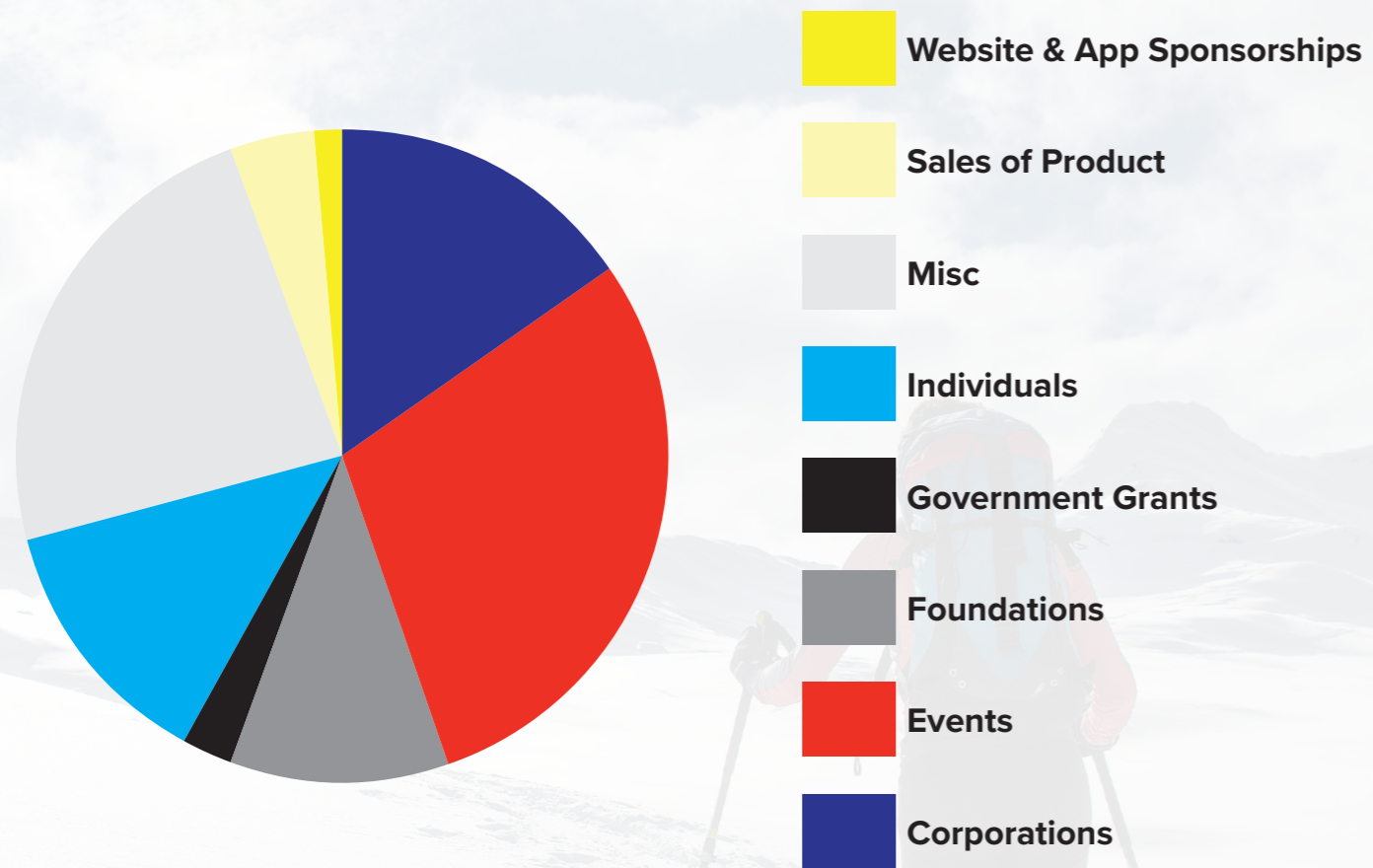
## Friends of CAIC Statement of Financial Position (As of June 30, 2017)

	Total
<b>ASSETS</b>	
Current Assets	
Bank Accounts	
1st Bank of Cherry Creek	81,639.46
Alpine Bank	428,455.65
Deposit Bank for Square	0.00
PayPal	9.48
Total Bank Accounts	\$ 510,104.59
Accounts Receivable	
Pledges Receivable	0.00
Total Accounts Receivable	\$ 0.00
Other Current Assets	
Inventory Asset	4,162.52
Undeposited Funds	0.00
Total Other Current Assets	\$ 4,162.52
Total Current Assets	\$ 514,267.11
Fixed Assets	
Accum. Depreciation	-23,829.67
Computer Hardware & Software	33,021.90
Vehicles	
Accum. Depreciation - Auto	-19,333.00
Original cost	37,180.00
Total Vehicles	\$ 17,847.00
Total Fixed Assets	\$ 27,039.23
Other Assets	
Other Assets	0.00
Total Other Assets	\$ 0.00
<b>TOTAL ASSETS</b>	<b>\$ 541,306.34</b>
<b>LIABILITIES AND EQUITY</b>	
Liabilities	
Current Liabilities	
Other Current Liabilities	
Direct Deposit Payable	0.00
Exchange	0.00
ISSW 2016 Liability	26,346.45
Payroll Exchange	0.00
Payroll Liabilities	0.00
CO Income Tax	895.00
CO Unemployment Tax	0.00
Federal Taxes (941/944)	3,648.87
Pershing	1,953.74
Total Payroll Liabilities	\$ 6,497.61
Revenue Exchange	0.00
Salaries Payable	0.00
Total Other Current Liabilities	\$ 32,844.06
Total Current Liabilities	\$ 32,844.06
Total Liabilities	\$ 32,844.06
Equity	
Opening Balance Equity	0.00
Unrestricted Fund Balance	492,590.82
Net Revenue	15,871.46
Total Equity	\$ 508,462.28
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$ 541,306.34</b>

## Friends of CAIC Statement of Activity (As of June 30, 2017)

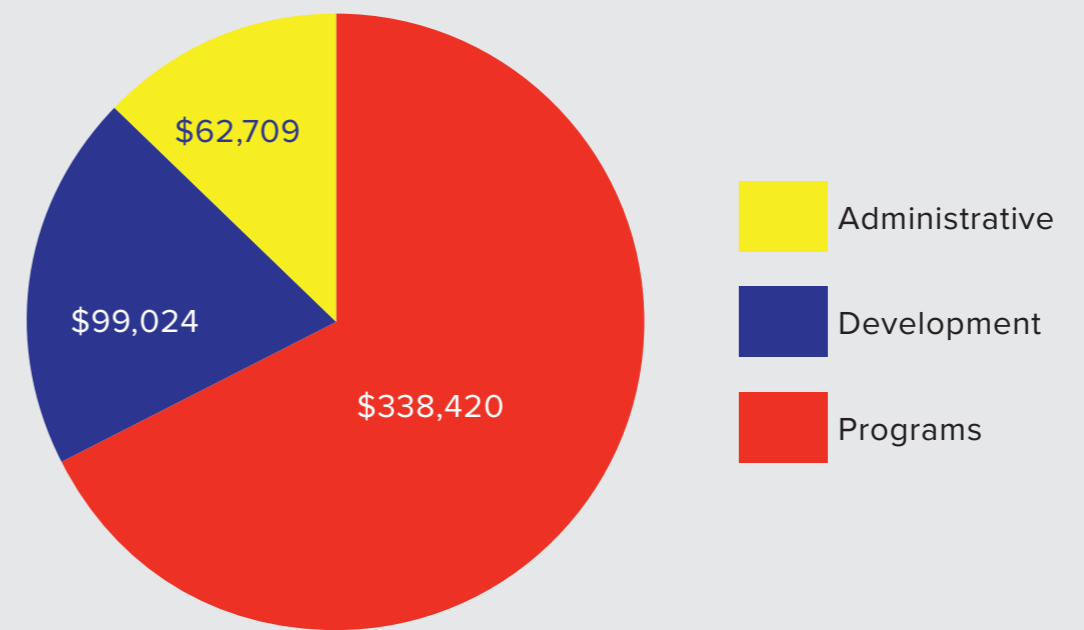
	Total
<b>Revenue</b>	
Corporations	81,037.64
Events/Seminars	152,868.75
Foundations	57,083.04
Government Grants	12,000.00
Individuals	67,588.24
Misc Income	123,065.91
Sales of Product Revenue	21,976.00
Website/ App Sponsorships	6,175.00
Total Revenue	\$ 521,794.58
<b>Cost of Goods Sold</b>	
Cost of Goods Sold	29,228.45
Total Cost of Goods Sold	\$ 29,228.45
Gross Profit	\$ 492,566.13
<b>Expenditures</b>	
Accounting Fees	5,904.46
Advertising Expense	925.15
Bank Service Charges	366.42
Charitable Registrations	20.00
Company Vehicle Expense	2,505.80
Computer Software	172,769.43
Conference/Meetings	225.63
Credit Card Service Fees	518.96
Depreciation Expense	18,024.00
Dues and Subscriptions	500.00
Education & Training	3,058.30
Educational Programs	19,288.50
Fundraising Expense	1,192.50
Gifts in Kind Expense - Goods/Services	900.00
Grant Disbursements	80,000.00
Internet/Website Services	1,886.67
Legal Fees	3,266.25
Liability Insurance	4,717.00
Marketing	19,589.51
Miscellaneous	-50.00
Office Supplies & Equipment	2,819.89
Payroll Expenses	116,914.83
Postage/Shipping	2,456.70
Professional Services	170.00
Reimbursements	3,387.05
Rent	1,962.00
Seminar/Event Expense	30,561.09
Square Fees	889.20
Travel	5,383.83
Total Expenditures	\$ 500,153.17
Net Operating Revenue	\$ (7,587.04)
<b>Other Revenue</b>	
Misc. revenue - ISSW Inventory Adjustment	25,308.50
Total Other Revenue	\$ 25,308.50
<b>Other Expenditures</b>	
Prior Fiscal Year/Adjustments	1,850.00
Total Other Expenditures	\$ 1,850.00
Net Other Revenue	\$ 23,458.50
Net Revenue	\$ 15,871.46

Revenue by Category



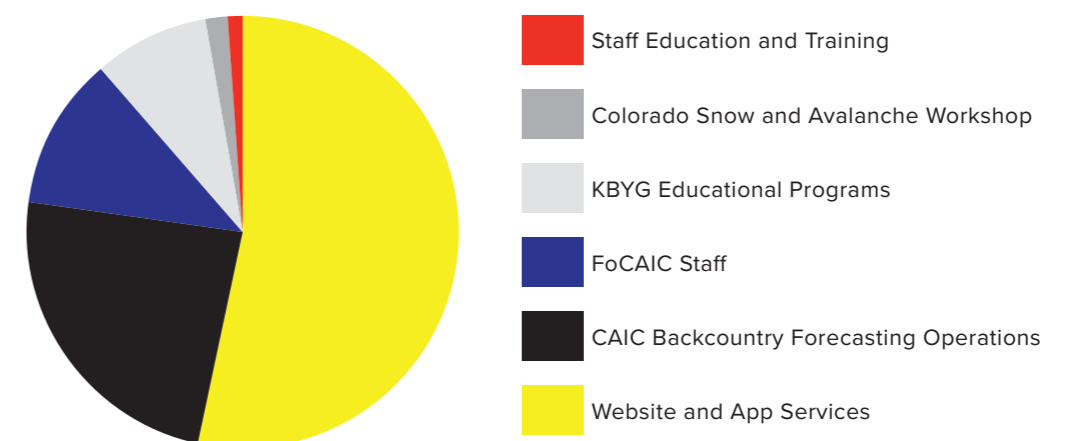
\*Grant Revenue from ISSW 2016 Organizing committee, interest income, gifts in-kind, and discounts given.

Expense breakdown by class



Program expense breakdown

CAIC Backcountry Forecasting Operations .....	\$80,000
KBYG Educational Programs.....	\$28,809
Staff Education and Training .....	\$2,956
Website and App Services.....	\$181,373
Colorado Snow and Avalanche Workshop.....	\$6,043
FoCAIC Staff.....	\$39,239
<b>TOTAL .....</b>	<b>\$338,420</b>





## Friends of CAIC Program Expense Label Definitions

### CAIC Backcountry Forecasting Operations

The FoCAIC makes a donation each year directly to the CAIC. This money pays for part of the CAIC's backcountry forecasting operation. Seasonal backcountry forecaster positions cost the CAIC about \$50,000 per position, per season. This cost includes salary, office space, travel, equipment, and training.

### KBYG Educational Program

Know Before You Go is our avalanche awareness program. We offer free avalanche education throughout the state of Colorado. The cost of this program includes the initial production and development of the education materials and money to pay instructors. We are now investing money in further development of new educational materials to ensure the program stays accurate, stays relevant, and can reach any group that needs more information on avalanche safety.

### FoCAIC Staff

Friends of CAIC has 2 full-time staff that work remotely from home offices and on the road throughout the winter season. Staff include an Executive Director and a Program Coordinator. The Executive Director is responsible for overseeing the administration, programs and strategic plan of the organization. The Program Coordinator manages the Friends of CAIC's marketing, fundraising campaigns, and the Know Before You Go Program.

### Website and App Services

The Friends of CAIC help support the CAIC website and mobile app. This includes hosting, maintenance and further development for both platforms. This sort of development is expensive but necessary to produce a quality product for you. We expect to spend more money on better technology so you can get avalanche forecasts and share snow, weather, and avalanche information in the future.

### Colorado Snow and Avalanche Workshop (CSAW)

CSAW is a one-day professional development seminar for people working in avalanche safety. It provides a venue for avalanche workers—ski patrollers, avalanche forecasters, road maintenance personnel, ski guides, avalanche education instructors, undergraduate and graduate students, and applied researchers—to listen to presentations and discuss new ideas, techniques and technologies with their colleagues. The meeting is open to anyone. Last year 500 people attended the workshop!

### CAIC Staff Education and Training

This category covers any expense we incur for supporting CAIC staff training. Training and education includes such things as paying for some staff to attend the International Snow Science Workshop, European Warning Service meeting, and other education or training opportunities.

safety throughout the State of Colorado since 1973.

Promoting avalanche safety throughout the State of Colorado since 1973.

Promoting avalanche safety throughout the State of Colorado since 1973.

Promoting avalanche safety throughout the State of Colorado since 1973.

Promoting avalanche safety throughout the State of Colorado



**CAIC**  
www.colorado.gov/avalanche



**FOR MORE INFORMATION OR QUESTIONS**  
**CAIC@STATE.CO.US**  
**INFO@FRIENDSOFCaic.ORG**

